SONY

Broadcast Master Monitor

Fulfilling your master monitoring needs even further
-the BVM-L230 at the pinnacle of LCD monitoring

Responding to the continued demands for a true master monitor, Sony introduces the BVM-L230, a 23-inch* LCD master monitor that uses the all-new TRIMASTER™ technology.

The stunning performance of the BVM-L230 is attributable to three new devices – a customised 23-inch* full HD LCD panel, a high precision backlight system, and a unique professional display engine used exclusively in this monitor – all of which are optimised for producing images with master monitoring quality. This has resulted in the highly reliable BVM-L230, which offers the accurate colour reproduction, precision imaging and quality picture consistency required in today's most demanding master monitoring applications. The BVM-L230 not only achieves the quality of its predecessor BVM-A & BVM-D Series CRT monitors, but also adds innovative features for today's new master monitoring needs. These include a newly-developed colour space selection function, a unique Picture & Picture display, and an interlace display mode to name just a few.

The BVM-L230 monitor presents a new solution for the full range of master monitoring applications, from acquisition to editing to colour correction.

* 22.5-inch viewable area measured diagonally.

TRIMASTER

BVM-L230

www.sonybiz.net/lmd

Key Devices – New Developments

The BVM-L230 incorporates three unique devices that have been customised for use on this monitor:

01 Customised LCD Panel – 23-inch Full HD Resolution
The LCD panel has been developed exclusively for use on the BVM-L230, based on strict master monitor criteria. It offers a 10-bit driver, an industry first for professional panels, and other high-level specifications such as high operatingframe rates and high-speed response.

02 Precision Backlight System
Using Sony designed high-purity LEDs, the precision backlight system is also used exclusively in the BVM-L230. This enables the widest colour space (gamut) ever offered in a Sony monitor to fully cover broadcast-standard colour spaces. The precision backlight system also incorporates a uniformity control function and a colour feedback system.

03 Professional Display Engine
The high-precision signal processing engine has been developed based on master monitor criteria and optimised for the BVM-L230. This engine incorporates 12-bit output accuracy at each process. It also provides a high-quality I/P conversion algorithm and a highly accurate colour management system.

Main Features

Accurate Colour Reproduction

01 Nonlinear Cubic Conversion Colour Management System
The nonlinear cubic conversion colour management system of the BVM-L230 uses a unique 3-D LUT (look-up table) to reproduce highly precise colour space, thus offering accurate colour reproduction.

02 Selectable Colour Space
(ITU-R BT.709, EBU, SMPTE-C, D-Cinema*)
The combination of a Sony high-purity LED backlight system, together with its colour management system, allows the BVM-L230 to accurately reproduce colour space that complies with broadcast standards - ITU-R BT.709, EBU or SMPTE-C. Furthermore, the BVM-L230 can emulate the D-Cinema colourspace*, which is used for digital cinema productions. Compared to CRT monitors offering only one colour space per model, the BVM-L230 allows these colour spaces to be selected and reproduced on the same monitor - a feature only made possible by the technologies used exclusively in the Sony BVM-L230 monitor.
* The RGB chromaticity of DCDM is not covered in full.

03 Digital Uniformity
The colour feedback system of the BVM-L230 constantly monitors and compensates for any colour shifts, maintaining accurate luminance uniformity.

Precision Imaging

01 Full HD Panel with 10-bit Driver
The BVM-L230 achieves both high resolution and stunning colour depth using a full 1920 x 1080* HD LCD panel and precise 10-bit driver
* The actual resolution of the LCD panel is 1920 x 1200.

02 Newly Developed I/P Conversion Technology
The BVM-L230 uses a sophisticated I/P conversion technique that keeps edge jaggedness, conversion errors and picture delays to a minimum – phenomena that are often seen in typical LCD monitors.

03 Black Frame Insertion
The BVM-L230 reduces motion blur by combining its high frame rate (120/100/96Hz) operation and black frame insertion technology using the high frame rate panel and driving engine.

Quality Picture Consistency

**01 High Accuracy Display Engine**
The BVM-L230 uses a 12-bit display engine, which allows images to be reproduced with high precision for accurate evaluation and manipulation.
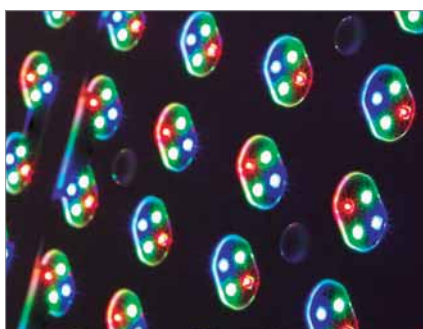
02 Panel Calibration
Each and every BVM-L230 monitor is carefully calibrated at the factory on an individual basis, providing a high level of accuracy and stability.

03 Colour Feedback System
Using a colour feedback system, the BVM-L230 achieves the stability called for in master monitors.
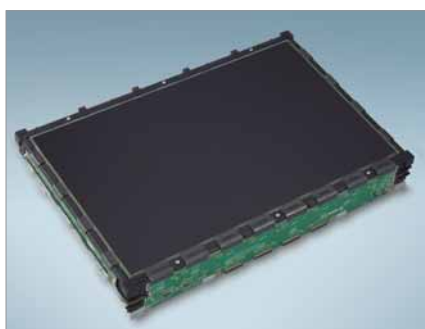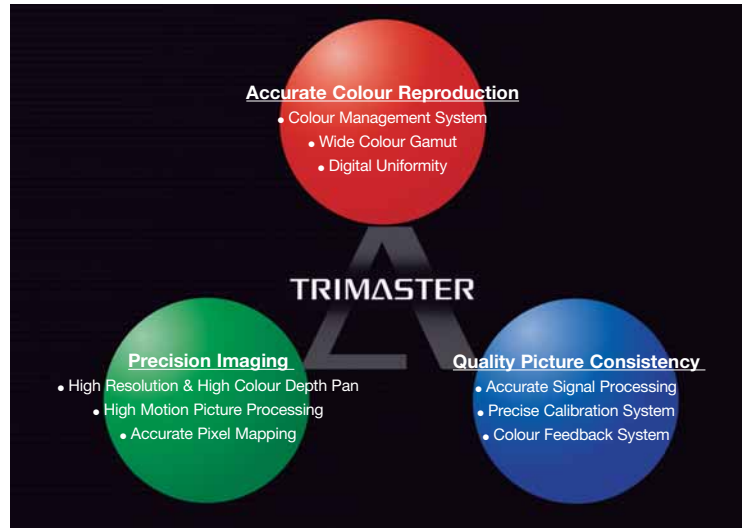

Customised LCD Panel – 23-inch Full HD Resolution

Precision Backlight System

Professional Display Engine

TRIMASTER Technology

TRIMASTER technology is a design architecture used to bring out the full performance capabilities of professional flat-panel displays. It comprises the core technologies that enable the highest level of colour accuracy, precision imaging and quality picture consistency.

Accurate Colour Reproduction
- Colour Management System
- Wide Colour Gamut
- Digital Uniformity

TRIMASTER

Precision Imaging
- High Resolution & High Colour Depth Pan
- High Motion Picture Processing
- Accurate Pixel Mapping

Quality Picture Consistency
- Accurate Signal Processing
- Precise Calibration System
- Colour Feedback System

High Level of Versatility and Operational Convenience

The BVM-L230 is equipped with the same acclaimed functions and operational conveniences of its predecessors, the BVM-A Series and BVM-D Series CRT master monitors. However, it also has some additional new features, which are only made possible by its flat-panel design:

01 Input Versatility

The BVM-L230 can accept almost any SD or HD video format, both analogue and digital. These include 525/60i, 625/50i, 525/60P, 625/50P, 1080/24PsF, 1080/24P, 1080/25PsF, 1080/25P, 1080/50i, 1080/30PsF, 1080/30P, 1080/60i, 720/50P, 720/60P,1080/50P, 1080/60P, and the digital cinema formats of 2048x1080/24PsF and 2048x1080/24P. It can also accept PC signals from VGA to WUXGA (1920x1200). In addition to a DVI-D interface equipped as standard, four option slots are offered to meet user needs. The optional interfaces include composite, Y/C, Y/PB/PR,RGB, SD-SDI, HD-SDI, and Dual-Link HD-SDI.

02 New Features and Functions

- Colour Space Selection (D-Cinema*, ITU-R BT.709, EBU, SMPTE-C)
- Picture & Picture (Side by Side, Wipe, Butterfly, Blending)
- Interlace Display Mode
- Black Frame Insertion
- VESA™ Mounting

* The RGB chromaticity of DCDM is not covered in full.

03 Conventional Features and Functions

- Blue Only
- Chroma Up (+12 dB)
- H Delay/V Delay
- Aspect Switch
- Safe Area Marker
- Colour Temperature Selection
- Internal Signal
- Auto Chroma Phase
- Auto Set Up
- Digital Uniformity
- Matrix Switch
- NTSC Setup Level
- Component Level
- Aperture
- Scan Switch
- Serial Remote
- Parallel Remote
- Tally Lamp
- Memory Stick™

BVM-L230 **Specification**

Panel

Panel size (diagonal)
22.5-inch*

Resolution
1920 x 1200 pixels

Backlight
High-purity LEDs

Driver
10 bit

Frame Rate
96 Hz, 100 Hz, 120 Hz

Input Interface

Number of slots
4

Composite (NTSC/PAL/SECAM/PAL-M)
BKM-227W

Y/C
BKM-227W

Y/P$_B$P$_R$/RGB
BKM-229X

SD-SDI
BKM-220D

HD-SDI
BKM-243HS

Dual-Link HD-SDI
BKM-243HS x 2 pcs

DVI-D
Standard x1 (HDCP-compliant)

General

Dimensions (W x H x D)
Approx. 565.5 x 435.2 x 248 mm
Approx. 22 $\frac{3}{8}$ x 17 $\frac{1}{4}$ x 9 $\frac{7}{8}$ inch

Mass
Approx. 24 kg
Approx. 52 lb 15 oz

* Viewable area measured diagonally.

Rear

Front